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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/183,819	10/30/1998	THOMAS H. BAKER	60980005DXH9	3549

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EXAMINER

HUFFMAN, JULIAN D

ART UNIT PAPER NUMBER

2853

DATE MAILED: 04/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/183,819

Applicant(s)

BAKER ET AL.

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-11,14-41 and 43-52 is/are pending in the application.
- 4a) Of the above claim(s) 37-41 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,15-25,27-36,43-49 and 52 is/are allowed.
- 6) ☒ Claim(s) 8,14,26,50 and 51 is/are rejected.
- 7) ☒ Claim(s) 1,2,6,8-11 and 50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Claims 37-41 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Claim Objections

2. Claims 1, 2, 6, 10, 8, 50, 9 and 11 are objected to because of the following informalities:

In claims 1 and 9, lines 6-7, it is respectfully suggested that the phrase "the modules" be changed to read "the at least one colorant-placing module" to provide proper antecedent basis.

In claim 8, there is insufficient antecedent basis for the phrase "said carriage" in line 6.

In claim 11, lines 6-7, it is respectfully suggested that the phrase "the colorant-placing module" be changed to read "the at least one colorant-placing module" to provide proper antecedent basis.

Claims 2, 6, 10 and 50 depend from claims 1 and 8.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 8, 14, 50, 51 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The disclosure does not support the claimed velocity and accuracy.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent in view of Bauer et al.

Vincent discloses an incremental printing system for forming desired images on a printing medium, by construction from very large numbers of individual liquid-ink drops ejected onto such medium in arrays, said printer comprising:

at least one inkdrop-placing module for ejecting very large numbers of liquid-ink drops onto such medium substantially whenever the printing system is in use for forming images (column 4, lines 52-54);

at least one colorimetric sensor, having at least one optical surface, for infrequently measuring, substantially when the printing system is not in use for forming images, colorimetric characteristics of ink previously received on such medium from the at least one inkdrop-placing module (element 10); and

an automatic microprocessor for using the measured colorimetric characteristics in refining operation of the inkdrop-placing module, to optimize the colorimetric quality of images formed on such medium thereafter (column 4, lines 10-46).

Vincent does not disclose a door covering the at least one optical surface of the sensor.

Bauer et al. disclose a door for protecting at least one optical surface of at least one sensor from being coated by atmospherically carried residual liquid ink when the at least one sensor is not in use, including whenever the printing system is in use for forming images (element 127); and

a mechanism for automatically opening the door before use of the at least one sensor, and for automatically closing the door after use of the at least one sensor (column 8, lines 7-20);

wherein, in the resulting combination, the microprocessor can reliably optimize the colorimetric quality of images, free from measurement degradation by coating of liquid ink on the at least one optical surface (column 8, lines 12-16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the door mechanism of Bauer et al. on the colorimeter of Vincent. The reason for providing the modification would have been to protect the sensor from contaminants (column 8, lines 12-16).

Response to Arguments

7. Applicant's argument regarding the 112 1st. paragraph rejection is not persuasive. Applicant's statement regarding the size of a typical test patch is not persuasive since it refers to specifications which are not supported by the original disclosure (i.e., the original disclosure does not discuss the size of the test patch, or centering the sensor within a tenth of the patch dimension). Similarly, no mention is made in the specification of the sensor velocity.

Applicant did not present any arguments regarding the rejection of claim 26. The rejection is deemed proper and maintained. Applicant had previously argued that the prior art of record does not disclose colorimetric measurements, however, Vincent discloses that the sensor is a colorimetric sensor which makes colorimetric measurements.

Applicant's additional arguments are moot in view of the new grounds of rejection.

Allowabl Subject Matter

8. Claims 1, 2, 6, 10, 9 and 11 would be allowable if rewritten to overcome the objections outlined above.

Claims 7, 15-25, 27-36, 43-49 and 52 are allowed.

With regards to claims 1, 2, 6 and 10, the prior art of record does not suggest or disclose a first sensor mounted to a first carriage and a second sensor mounted to a second auxiliary carriage.

With regards to claims 7, 17, 19-25 and 52, the prior art of record does not disclose a mechanism for advancing the hood along the sensing direction toward the recording medium.

With regards to claims 9 and 18, the prior art of record does not disclose a mechanism for advancing a component associated with the second sensor into contact with the medium.

With regards to claim 11, the prior art of record does not disclose means for controlling the motor and drive train, while the carriages are attached, to position the first carriage and thereby the second carriage for substantially stationary operation in refining the quality of images.

In Hirano et al. and Vincent, no mention is made of positioning the carriage for substantially stationary operation in refining the quality of images. In Vincent the sensor presumably moves over the test patches and no mention is made of the sensor being in

a substantially stationary position while taking readings, further Hirano prints while moving the carriage.

With regards to claims 15 and 16, the prior art of record does not disclose the sensor holding at least one reference target for presentation to the sensor.

With regards to claims 27-36 the prior art of record does not disclose means for measuring at least one absolute color reference when the door is not open.

With regards to claims 43-49, the prior art of record does not disclose the at least one reference target carried on the moving carriage.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (703) 308-6556. The examiner can normally be reached on Monday through Friday from 9:30 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached at (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722. Faxes requiring the immediate attention of the examiner may be sent directly to the examiner at (703) 746-4386. Note that this number will not automatically send a confirmation that the fax was received.

Art Unit: 2853

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JH

JH

2 April 2003



JUDY NGUYEN
PRIMARY EXAMINER